From our young years of childhood, we imagine various factors to acquire knowledge. We use imagination to understand meanings of words, to play games with friends or to predict the future. So what exactly is imagination? Imagination is the tool we use solely in our heads to form images, ideas or concepts based on the already acquired knowledge. Using imagination, we have enhanced our knowledge, both academically and otherwise.

If imagination is used as a way of acquiring new knowledge, can it be listed side by side with other Ways of Knowing (WOK) from the traditional TOK diagram: language, emotion, reason, and sense perception? What are the links between imagination and other WOKs? Emotion, for example, is greatly affected by imagination. My friends and I often imagine about what we would do after the final IB exams, and though it has not taken place yet, we feel excited. Or when I imagine myself parting with my friends, a feeling of loneliness grows inside of me. Our sense perception, too, can manipulate what we imagine. For example, what we hear can affect what we visualise in our heads or what we smell can change the food imagined in our heads. Reason can be greatly affected by what we imagine. Often, when we decide on a matter or choose our preferences, we imagine the consequences of our choices. Depending on what we imagine would happen, we finalise our decision, and the reason behind our decision is often the imagined consequences.

Our knowledge issue being dealt is: how is imagination a credible way of knowing? To what extent does the use of imagination allow to guide us when acquiring new knowledge? My thesis is that imagination enhances the acquisition of knowledge but at the same time, knowledge is the basis of all imagination therefore there is a limit to our imagination capacity.

When connecting imagination to the Areas of Knowledge (AOKs) in the traditional TOK diagram, the most relevant AOK would be, without doubt, arts. Art greatly requires imagination. Artists often attempt to visualise emotions, thoughts and claims. During their process of doing so, they imagine the colour of their emotion, the central object of their piece and the techniques or materials they would use in order to present their work. A cartoonist would imagine the pictures that best suit the plot or theme. When showing a representative image of the society, artists often view the world from different perspectives and this requires imagination. It is fairly obvious to claim that imagination is an important WOK in arts.

However, how does imagination play a role in other AOKs? Mathematics, language, human sciences, ethics, history and natural sciences all seem like imagination is most unnecessary. I will explore the use of imagination through two AOKs, namely mathematics and human sciences, and the knowledge issues each AOK raises in order to observe the true credibility of imagination as a WOK.

There is a famous quote a mathematician David Hilbert said when his student gave up mathematics to become a novelist. He said “It’s just as well – he had no imagination.” Generally, mathematics is a subject of logic, so what Hilbert said would be unexpected to many. How is imagination necessary in mathematics? How has imagination contributed to the mathematical discoveries? It can be claimed that imagination has allowed further mathematical understanding. Take the concept of imaginary number for instance; this itself includes the word “imagine” and it is a concept of a number that equals negative one when squared, which should be impossible. Also, when solving a real-life situation problem, I often imagine the situation in my head in order to figure out how to solve the question. For example, if the question asked me how to measure the height of a building from a certain distance, I would imagine looking up at the building and figuring out what values are necessary in order to apply the theories I have learnt. In such situations, imagination is highly necessary.

However, some mathematics is entirely logical, based on reason, and cannot be imagined. Basic algebra requires no imagination and rather depends greatly on logic and reality. Imaginary number can also be taken as just a concept that is built around a logical assumption. The idea of an imaginary number is that if such number as an imaginary number was to exist, the other mathematical theories that are built around that one concept are to exist as well. This is entirely logical and thus does not require imagination.

What is the role of imagination in the human sciences? To what extent can imagination be applied in understanding and expanding the knowledge of sciences? When learning new things in human sciences, imagination enables the ease of understanding and perceiving knowledge. When building hypothesis for various theories and experiments, imagination allows thinking of various possible situations. For example, when doing an urban structure investigation for my geography class, I imagined the city and its characteristics before actually going to the city to do the investigation. Through this imagination, I came up with possible results that can be obtained.

However, it can be claimed that the truth cannot be proofed by imagination. Experiments and observations are what proves the reality and so imagination cannot conclude anything. No matter how busy I imagine the city to be, unless I go to the city and see for myself, there is no definite proof or evidence that the city is busy.

On the other hand, it can be claimed that imagination is the starter of all ideas. It allows people to place various ideas in the first place, thus leading to various experiments and observations. However, imagination is purely based on the gained knowledge and previous experiences. It is impossible to imagine something that you know completely nothing about. Though it is often said that imagination is limitless, there actually is a limit and imagination is all based on what you already know. So, in cases of human sciences, we build hypothesis taking in account of the facts we know already about or we ‘imagine’ different situations because we already have images or situations inputted in our memory.

Imagination as a fifth Way of Knowing in the traditional TOK diagram seems possible; however, there are various setbacks. What is thought to be imagination can just be an assumption or a condition so that a logical extension can be made. New knowledge can be derived from imagination, but imagination itself is greatly dependent on the amount of knowledge one possesses and it cannot go beyond the possessed knowledge. With more gained knowledge, imagination can expand. However, it may not be the sufficient tool when using it as a Way of Knowing. Referring back to Albert Einstein’s quote, imagination is mentioned to be limitless, however, he may have said those words because he was a ‘genius’ who had more knowledge compared to others, thus making it possible for his imagination to be almost limitless. Imagination is always based on what has already been known or experienced, so including imagination as a fifth Way of Knowing is not probable.